



Pathogens of domestic and free-ranging ungulates: Global climate change in temperate to boreal latitudes across North America

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Abstract:

In North America broad-based research networks explore the interaction of vertebrates, their characteristic arrays of pathogens and emergent disease. A diversity of programmes address the impact of environmental change on animal health, zoonoses, and human health, but as yet no comprehensive framework or strategy has emerged to develop and implement policy and planning. In a regime of climate change and ecological perturbation, the need to document and understand the health, agricultural, societal and economic impact of pathogens and emerging infectious disease is urgent. An integrated and proactive planning process linking national and international resources can lead to informed predictions about the impact of environmental change and can identify pathways for potential management and mitigation. An effective and comprehensive programme will have components for establishing priorities, developing primary data for faunal structure and biodiversity, a capacity for monitoring and surveillance (including scanning and targeted activities), and linkage to historical and contemporary baselines (against which to assess change) established through archival biological collections. Field and laboratory studies are also necessary to determine developmental thresholds, tolerances and tipping points for many pathogens to establish a context for recognising current constraints and future perturbation, and to explore factors that promote emergence for a variety of pathogens, vectors and pest species. Predictive modelling and risk assessment utilising a range of scenarios for climate change is a final step in this multidisciplinary process.

Source: [http://web.oie.int/boutique/index.php?page=Euro Surveillance \(Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin\)fcprod&id_produit=Euro Surveillance \(Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin\)115&id_produit=Euro Surveillance \(Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin\)701&lang=Euro Surveillance \(Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin\)en&fichrech=Euro Surveillance \(Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin\)1&PHPSESSID=Euro Surveillance \(Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin\)6bb334f9e08994fe55ba3a6cd34c935b](http://web.oie.int/boutique/index.php?page=Euro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)fcprod&id_produit=Euro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)115&id_produit=Euro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)701&lang=Euro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)en&fichrech=Euro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)1&PHPSESSID=Euro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)6bb334f9e08994fe55ba3a6cd34c935b)

Resource Description

Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

Climate Change and Human Health Literature Portal

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States, United States

Non-United States: Non-U.S. North America

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: General Infectious Disease

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type:

format or standard characteristic of resource

Research Article, Review

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content